

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product form : Mixture
Trade name : iLAST EXTENDED LIFE DOT 3 SYNTHETIC BRAKE FLUID 5 GALLON
Product code : FPI0005

1.2. Relevant identified uses of the substance or mixture and uses advised against

Use of the substance/mixture : Brake Fluid

1.3. Details of the supplier of the safety data sheet

US Global Petroleum
9101 Fullerton Avenue
Franklin Park, IL 60131 - USA
T 773-376-9660

1.4. Emergency telephone number

Emergency number : CHEMTREC 24 Hour 1-800-424-9300, 1-703-527-3887 (International)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

GHS US classification

Acute toxicity (oral) Category 4	H302 Harmful if swallowed
Skin corrosion/irritation Category 2	H315 Causes skin irritation
Serious eye damage/eye irritation Category 1	H318 Causes serious eye damage
Reproductive toxicity Category 2	H361 Suspected of damaging fertility or the unborn child
Specific target organ toxicity (repeated exposure) Category 2	H373 May cause damage to organs through prolonged or repeated exposure

Full text of H- and EUH-statements: see section 16

2.2. Label elements

GHS US labeling

Hazard pictograms (GHS US) :



Signal word (GHS US) :

: Danger

Hazard statements (GHS US) :

: H302 - Harmful if swallowed
H315 - Causes skin irritation
H318 - Causes serious eye damage
H361 - Suspected of damaging fertility or the unborn child
H373 - May cause damage to organs through prolonged or repeated exposure

Precautionary statements (GHS US) :

: P201 - Obtain special instructions
P202 - Do not handle until all safety precautions have been read and understood.
P260 - Do not breathe dust, fumes, gas, mist, vapor, spray
P264 - Wash affected areas thoroughly after handling
P270 - Do not eat, drink or smoke when using this product.
P280 - Wear protective gloves, protective clothing, eye protection, face protection
P301+P312 - If swallowed: Call a poison center, doctor if you feel unwell
P302+P352 - If on skin: Wash with plenty of soap and water
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308+P313 - If exposed or concerned: Get medical advice/attention.
P310 - Immediately call a poison center, doctor, physician
P314 - Get medical advice/attention if you feel unwell.
P321 - Specific treatment: See section 4.1 on SDS
P330 - Rinse mouth.
P332+P313 - If skin irritation occurs: Get medical advice/attention.
P362+P364 - Take off contaminated clothing and wash it before reuse.
P405 - Store locked up.
P501 - Dispose of contents/container to appropriate waste disposal facility, in accordance with local, regional, national, international regulations.

2.3. Other hazards

Other hazards which do not result in classification : None under normal conditions.

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2.4. Unknown acute toxicity (GHS US)

No data available

SECTION 3: Composition/Information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	GHS US classification
Triethylene Glycol Monomethyl Ether	(CAS-No.) 112-35-6	5 – 50	Not classified
Triethyleneglycol Monoethyl Ether	(CAS-No.) 112-50-5	5 – 50	Not classified
Triethylene Glycol Monobutyl Ether	(CAS-No.) 143-22-6	5 – 50	Eye Dam. 1, H318
3,6,9,12-Tetraoxahexadecane-1-ol	(CAS-No.) 1559-34-8	5 – 20	Not classified
Polyethylene Glycol 200-600	(CAS-No.) 25322-68-3	5 – 20	Not classified
2-(2-Butoxyethoxy) Ethanol	(CAS-No.) 112-34-5	5 – 20	Eye Irrit. 2A, H319
Tetraethylene Glycol Monomethyl Ether	(CAS-No.) 23783-42-8	5 – 20	Not classified
Oxirane, 2-Methyl-, Polymer with Oxirane, Monobutyl Ether	(CAS-No.) 9038-95-3	5 – 20	Not classified
Polyalkylene Glycol Monobutyl Ether	(CAS-No.) 9004-77-7	5 – 20	Not classified
Diethylene Glycol	(CAS-No.) 111-46-6	5 – 15	STOT RE 2, H373
Diethylene Glycol Monomethyl Ether	(CAS-No.) 111-77-3	< 5	Flam. Liq. 4, H227 Repr. 2, H361
Diethyleneglycolmonoethyl Ether	(CAS-No.) 111-90-0	< 5	Eye Irrit. 2A, H319
Trade Secret Inhibitor Package	(CAS-No.) Trade Secret	< 3	Not classified

SECTION 4: First aid measures

4.1. Description of first aid measures

- First-aid measures general : Never give anything by mouth to an unconscious person. IF exposed or concerned: Get medical advice/attention.
- First-aid measures after inhalation : Allow affected person to breathe fresh air. Allow the victim to rest.
- First-aid measures after skin contact : Wash with plenty of soap and water. Wash contaminated clothing before reuse. If skin irritation occurs: Get medical advice/attention.
- First-aid measures after eye contact : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a poison center or doctor/physician.
- First-aid measures after ingestion : Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention. Call a POISON CENTER or doctor/physician if you feel unwell.

4.2. Most important symptoms and effects, both acute and delayed

- Symptoms/effects : Suspected of damaging fertility or the unborn child. Causes damage to organs.
- Symptoms/effects after inhalation : May cause irritation or asthma-like symptoms.
- Symptoms/effects after skin contact : Itching. Skin rash/inflammation. Red skin. Causes skin irritation.
- Symptoms/effects after eye contact : Inflammation/damage of the eye tissue. Irritation of the eye tissue. Redness of the eye tissue. Causes serious eye damage.
- Symptoms/effects after ingestion : May be harmful if swallowed and enters airways. May be fatal if swallowed and enters airways. Swallowing a small quantity of this material will result in serious health hazard.

4.3. Indication of any immediate medical attention and special treatment needed

No additional information available

SECTION 5: Firefighting measures

5.1. Extinguishing media

- Suitable extinguishing media : Foam. Dry powder. Carbon dioxide. Water spray. Sand.
- Unsuitable extinguishing media : Do not use a heavy water stream.

5.2. Special hazards arising from the substance or mixture

5.3. Advice for firefighters

- Firefighting instructions : Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire-fighting water from entering environment.
- Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

- General measures : Remove ignition sources.

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6.1.1. For non-emergency personnel

Protective equipment : Gloves. Safety glasses.
Emergency procedures : Evacuate unnecessary personnel.

6.1.2. For emergency responders

Protective equipment : Equip cleanup crew with proper protection.
Emergency procedures : Ventilate area.

6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

For containment : Dam up the liquid spill. Contain released product, collect/pump into suitable containers. Plug the leak, cut off the supply.
Methods for cleaning up : Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Collect spillage. Store away from other materials.

6.4. Reference to other sections

See Heading 8. Exposure controls and personal protection.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapor. Obtain special instructions . Do not handle until all safety precautions have been read and understood. Avoid breathing dust,fume,gas,mist,vapor spray.
Hygiene measures : Wash contaminated clothing before reuse. Remove contaminated clothes. Separate working clothes from town clothes. Launder separately. Always wash hands after handling the product. Do not eat, drink or smoke when using this product. Wash affected areas thoroughly after handling.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures : Proper grounding procedures to avoid static electricity should be followed. Comply with applicable regulations.
Storage conditions : Keep only in the original container in a cool, well ventilated place away from : Keep container closed when not in use.
Incompatible products : Strong bases. Strong acids.
Incompatible materials : Sources of ignition. Direct sunlight.

7.3. Specific end use(s)

Follow Label Directions.

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SECTION 8: Exposure controls/personal protection

8.1. Control parameters

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No additional information available	
Triethylene Glycol Monomethyl Ether (112-35-6)	
No additional information available	
Triethyleneglycol Monoethyl Ether (112-50-5)	
No additional information available	
Triethylene Glycol Monobutyl Ether (143-22-6)	
No additional information available	
3,6,9,12-Tetraoxahexadecane-1-ol (1559-34-8)	
No additional information available	
Polyethylene Glycol 200-600 (25322-68-3)	
No additional information available	
2-(2-Butoxyethoxy) Ethanol (112-34-5)	
USA - ACGIH - Occupational Exposure Limits	
ACGIH OEL TWA [ppm]	10 ppm (Diethylene glycol monobutyl ether; USA; Time-weighted average exposure limit 8 h; TLV - Adopted Value; Inhalable fraction and vapor)
Diethylene Glycol (111-46-6)	
No additional information available	
Diethylene Glycol Monomethyl Ether (111-77-3)	
No additional information available	
Diethyleneglycolmonoethyl Ether (111-90-0)	
No additional information available	
Tetraethylene Glycol Monomethyl Ether (23783-42-8)	
No additional information available	
Oxirane, 2-Methyl-, Polymer with Oxirane, Monobutyl Ether (9038-95-3)	
No additional information available	
Trade Secret Inhibitor Package (Trade Secret)	
No additional information available	
Polyalkylene Glycol Monobutyl Ether (9004-77-7)	
No additional information available	

8.2. Appropriate engineering controls

Appropriate engineering controls : Local exhaust ventilation, vent hoods . Ensure good ventilation of the work station.
Environmental exposure controls : Avoid release to the environment.

8.3. Individual protection measures/Personal protective equipment

Personal protective equipment:

Gloves. Safety glasses. Avoid all unnecessary exposure.

Materials for protective clothing:

Excellent resistance:

Hand protection:

Wear protective gloves

Eye protection:

Chemical goggles or safety glasses

Skin and body protection:

Wear suitable protective clothing

Respiratory protection:

Wear appropriate mask

Personal protective equipment symbol(s):

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Other information:

Do not eat, drink or smoke during use.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Appearance	: Liquid.
Color	: Colourless to light yellow.
Odor	: Mild.
Odor threshold	: No data available
pH	: 7.5 – 11.5
Relative evaporation rate (butyl acetate=1)	: < 0.01
Melting point	: No data available
Freezing point	: No data available
Boiling point	: 232 – 273 °C
Flash point	: > 135 °C
Auto-ignition temperature	: 310 °C
Decomposition temperature	: No data available
Flammability	: No data available
Vapor pressure	: < 0.01 mm Hg
Relative vapor density at 20 °C	: > 1 (air=1)
Relative density	: 1.025 – 1.075
Solubility	: Soluble in water.
Partition coefficient n-octanol/water (Log Pow)	: No data available
Partition coefficient n-octanol/water (Log Kow)	: No data available
Viscosity, kinematic	: 2 mm ² /s @ 100 deg C
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidizing properties	: No data available
Explosion limits	: No data available

9.2. Other information

VOC content	: < 1 %
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SECTION 10: Stability and reactivity

10.1. Reactivity

No additional information available

10.2. Chemical stability

Not established.

10.3. Possibility of hazardous reactions

Not established.

10.4. Conditions to avoid

None. Direct sunlight. Extremely high or low temperatures.

10.5. Incompatible materials

Strong acids. Strong bases.

10.6. Hazardous decomposition products

Toxic fume. . Carbon monoxide. Carbon dioxide.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral)	: Harmful if swallowed.
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Acute toxicity (dermal) : Not classified

Acute toxicity (inhalation) : Not classified

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LD50 oral rat	> 2000 mg/kg
ATE US (oral)	500 mg/kg body weight
Triethylene Glycol Monomethyl Ether (112-35-6)	
LD50 oral rat	> 10500 mg/kg body weight (Equivalent or similar to OECD 401, Rat, Male / female, Experimental value, Oral)
LD50 dermal rabbit	7.1 ml/kg (24 h, Rabbit, Male, Experimental value, Dermal)
ATE US (dermal)	7455 mg/kg body weight
Triethyleneglycol Monoethyl Ether (112-50-5)	
LD50 oral rat	10610 mg/kg body weight (Equivalent or similar to OECD 401, Rat, Male, Experimental value, Oral, 14 day(s))
LD50 dermal rabbit	3540 mg/kg body weight (24 h, Rabbit, Male, Read-across, Dermal, 14 day(s))
ATE US (oral)	10610 mg/kg body weight
ATE US (dermal)	3540 mg/kg body weight
Triethylene Glycol Monobutyl Ether (143-22-6)	
LD50 oral rat	> 5000 mg/kg (Rat)
LD50 dermal rabbit	3480 mg/kg (Rabbit)
ATE US (dermal)	3480 mg/kg body weight
3,6,9,12-Tetraoxahexadecane-1-ol (1559-34-8)	
LD50 oral rat	2630 mg/kg body weight (BASF test, Rat, Male / female, Experimental value, Oral, 7 day(s))
LD50 dermal rat	> 4000 mg/kg (Rat, Dermal)
ATE US (oral)	2630 mg/kg body weight
Polyethylene Glycol 200-600 (25322-68-3)	
LD50 oral rat	> 15000 mg/kg (Rat, Oral)
LD50 dermal rabbit	> 20000 mg/kg (Rabbit, Dermal)
2-(2-Butoxyethoxy) Ethanol (112-34-5)	
LD50 oral rat	5660 mg/kg (Rat)
LD50 dermal rabbit	2764 mg/kg (Rabbit; Experimental value; OECD 402: Acute Dermal Toxicity)
ATE US (oral)	5660 mg/kg body weight
ATE US (dermal)	2764 mg/kg body weight
Diethylene Glycol (111-46-6)	
LD50 oral rat	16500 mg/kg body weight (Rat, Male / female, Experimental value, Oral, 5 day(s))
LD50 dermal rabbit	13300 mg/kg body weight (Rabbit, Experimental value, Dermal, 14 day(s))
ATE US (oral)	16500 mg/kg body weight
ATE US (dermal)	13300 mg/kg body weight
Diethylene Glycol Monomethyl Ether (111-77-3)	
LD50 oral rat	4140 mg/kg (Rat)
LD50 dermal rabbit	> 2000 mg/kg (Rabbit)
LC50 Inhalation - Rat	> 20 mg/l/4h (Rat)
ATE US (oral)	4140 mg/kg body weight
Diethyleneglycolmonoethyl Ether (111-90-0)	
LD50 dermal rabbit	9143 mg/kg body weight (Equivalent or similar to OECD 402, 24 h, Rabbit, Male, Experimental value, Dermal, 14 day(s))
ATE US (dermal)	9143 mg/kg body weight
Tetraethylene Glycol Monomethyl Ether (23783-42-8)	
LD50 oral rat	> 15000 mg/kg (Equivalent or similar to OECD 401, 14 day(s), Rat, Female, Experimental value, Oral, 14 day(s))
LD50 dermal rabbit	7100 mg/kg body weight (24 h, Rabbit, Male, Experimental value, Dermal, 14 day(s))
ATE US (dermal)	7100 mg/kg body weight
Oxirane, 2-Methyl-, Polymer with Oxirane, Monobutyl Ether (9038-95-3)	
LD50 oral rat	> 2000 mg/kg body weight (Rat, Oral)
LD50 dermal rabbit	> 2000 mg/kg body weight (Rabbit, Dermal)

Skin corrosion/irritation : Causes skin irritation.

pH: 7.5 – 11.5

Serious eye damage/irritation : Causes serious eye damage.

pH: 7.5 – 11.5

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Respiratory or skin sensitization	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified

Polyalkylene Glycol Monobutyl Ether (9004-77-7)	
IARC group	4 - Probably not carcinogenic to humans
Reproductive toxicity	: Suspected of damaging fertility or the unborn child.
STOT-single exposure	: Not classified
STOT-repeated exposure	: May cause damage to organs through prolonged or repeated exposure.

Diethylene Glycol (111-46-6)	
STOT-repeated exposure	May cause damage to organs through prolonged or repeated exposure.
Aspiration hazard	: Not classified
Viscosity, kinematic	: 2 mm ² /s @ 100 deg C
Potential Adverse human health effects and symptoms	: Based on available data, the classification criteria are not met. Harmful if swallowed.
Symptoms/effects	: Suspected of damaging fertility or the unborn child. Causes damage to organs.
Symptoms/effects after inhalation	: May cause irritation or asthma-like symptoms.
Symptoms/effects after skin contact	: Itching. Skin rash/inflammation. Red skin. Causes skin irritation.
Symptoms/effects after eye contact	: Inflammation/damage of the eye tissue. Irritation of the eye tissue. Redness of the eye tissue. Causes serious eye damage.
Symptoms/effects after ingestion	: May be harmful if swallowed and enters airways. May be fatal if swallowed and enters airways. Swallowing a small quantity of this material will result in serious health hazard.

SECTION 12: Ecological information

12.1. Toxicity

Triethylene Glycol Monomethyl Ether (112-35-6)	
EC50 - Crustacea [1]	> 500 mg/l (EU Method C.2, 48 h, Daphnia magna, Static system, Fresh water, Experimental value)
ErC50 algae	> 500 mg/l (72 h, Desmodesmus subspicatus, Static system, Fresh water, Experimental value)
Triethyleneglycol Monoethyl Ether (112-50-5)	
LC50 - Fish [1]	> 10000 mg/l (96 h, Pimephales promelas, Static system, Experimental value, Nominal concentration)
ErC50 algae	> 500 mg/l (UBA, 72 h, Desmodesmus subspicatus, Static system, Fresh water, Weight of evidence, Nominal concentration)
Triethylene Glycol Monobutyl Ether (143-22-6)	
LC50 - Fish [2]	2200 mg/l (LC50; 96 h)
EC50 - Crustacea [2]	> 500 mg/l (EC50; 48 h)
Threshold limit - Algae [1]	> 500 mg/l (EC50; 72 h)
3,6,9,12-Tetraoxahexadecane-1-ol (1559-34-8)	
LC50 - Fish [1]	> 1409 mg/l (96 h, Salmo gairdneri, Similar product)
EC50 - Crustacea [1]	> 1000 mg/l (48 h, Daphnia magna, Similar product)
Polyethylene Glycol 200-600 (25322-68-3)	
LC50 - Fish [1]	> 5000 mg/l (24 h, Carassius auratus)
2-(2-Butoxyethoxy) Ethanol (112-34-5)	
LC50 - Fish [1]	1300 mg/l (LC50; OECD 203: Fish, Acute Toxicity Test; 96 h; Lepomis macrochirus; Static system; Fresh water; Experimental value)
EC50 - Crustacea [2]	> 100 mg/l (EC50; OECD 202: Daphnia sp. Acute Immobilisation Test; 48 h; Daphnia magna; Static system; Fresh water; Experimental value)
Diethylene Glycol (111-46-6)	
LC50 - Fish [1]	75200 mg/l (96 h, Pimephales promelas, Flow-through system, Experimental value, Lethal)
EC50 - Crustacea [1]	> 10000 mg/l (DIN 38412-11, 24 h, Daphnia magna, Static system, Fresh water, Experimental value, Locomotor effect)
Diethylene Glycol Monomethyl Ether (111-77-3)	
LC50 - Fish [1]	1000 mg/l (LC50; 96 h)
EC50 - Crustacea [1]	> 500 mg/l (EC50; 48 h)
Threshold limit - Algae [1]	> 500 mg/l (EC50; 72 h)

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Diethyleneglycolmonoethyl Ether (111-90-0)	
LC50 - Fish [1]	6010 mg/l (Equivalent or similar to OECD 203, 96 h, Ictalurus punctatus, Flow-through system, Fresh water, Experimental value, Lethal)
ErC50 algae	14861 mg/l (Equivalent or similar to OECD 201, 72 h, Pseudokirchneriella subcapitata, Static system, Fresh water, Experimental value, Nominal concentration)
Tetraethylene Glycol Monomethyl Ether (23783-42-8)	
LC50 - Fish [1]	> 10000 mg/l (DIN 38412: German standard methods for the examination of water, waste water and sludge, 96 h, Leuciscus idus, Static system, Fresh water, Read-across, Nominal concentration)
EC50 - Crustacea [1]	22900 mg/l (Equivalent or similar to OECD 202, 48 h, Daphnia magna, Static system, Fresh water, Experimental value, Locomotor effect)
ErC50 algae	> 500 mg/l (UBA, 72 h, Desmodesmus subspicatus, Static system, Fresh water, Experimental value, Nominal concentration)
Oxirane, 2-Methyl-, Polymer with Oxirane, Monobutyl Ether (9038-95-3)	
LC50 - Other aquatic organisms [1]	> 10000 mg/l (96 h)

12.2. Persistence and degradability

iLAST EXTENDED LIFE DOT 3 SYNTHETIC BRAKE FLUID 5 GALLON	
Persistence and degradability	Not established.
Triethylene Glycol Monomethyl Ether (112-35-6)	
Persistence and degradability	Inherently biodegradable. Non degradable in the soil. Photodegradation in the air. Not established.
Triethyleneglycol Monoethyl Ether (112-50-5)	
Persistence and degradability	Readily biodegradable in water. Not established.
Triethylene Glycol Monobutyl Ether (143-22-6)	
Persistence and degradability	Readily biodegradable in water. Not established.
Biochemical oxygen demand (BOD)	0.02 g O ₂ /g substance
Chemical oxygen demand (COD)	1.83 g O ₂ /g substance
3,6,9,12-Tetraoxahexadecane-1-ol (1559-34-8)	
Persistence and degradability	Not readily biodegradable in water. Inherently biodegradable. Not established.
ThOD	2.05 g O ₂ /g substance
Polyethylene Glycol 200-600 (25322-68-3)	
Persistence and degradability	Biodegradability in water: no data available. Not established.
2-(2-Butoxyethoxy) Ethanol (112-34-5)	
Persistence and degradability	Readily biodegradable in water. Biodegradable in the soil. No (test)data on mobility of the substance available. Photodegradation in the air.
Biochemical oxygen demand (BOD)	0.25 g O ₂ /g substance
Chemical oxygen demand (COD)	2.08 g O ₂ /g substance
ThOD	2.173 g O ₂ /g substance
BOD (% of ThOD)	0.11
Diethylene Glycol (111-46-6)	
Persistence and degradability	Readily biodegradable in water. Biodegradable in the soil. Highly mobile in soil. Photolysis in the air. Not established.
Biochemical oxygen demand (BOD)	0.02 g O ₂ /g substance
Chemical oxygen demand (COD)	1.51 g O ₂ /g substance
ThOD	1.51 g O ₂ /g substance
Diethylene Glycol Monomethyl Ether (111-77-3)	
Persistence and degradability	Readily biodegradable in water. Photolysis in the air. Photodegradation in the air. Not established.
Chemical oxygen demand (COD)	1.71 g O ₂ /g substance
ThOD	1.73 g O ₂ /g substance
Diethyleneglycolmonoethyl Ether (111-90-0)	
Persistence and degradability	Readily biodegradable in water. Not established.
Biochemical oxygen demand (BOD)	0.2 g O ₂ /g substance
Chemical oxygen demand (COD)	1.85 g O ₂ /g substance
ThOD	1.9078849 g O ₂ /g substance
BOD (% of ThOD)	0.11 (Calculated value)
Tetraethylene Glycol Monomethyl Ether (23783-42-8)	
Persistence and degradability	Inherently biodegradable. Photolysis in the air. Not established.

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Oxirane, 2-Methyl-, Polymer with Oxirane, Monobutyl Ether (9038-95-3)	
Persistence and degradability	Not readily biodegradable in water. Not established.
Trade Secret Inhibitor Package (Trade Secret)	
Persistence and degradability	Not established.
Polyalkylene Glycol Monobutyl Ether (9004-77-7)	
Persistence and degradability	Not established.
12.3. Bioaccumulative potential	
iLAST EXTENDED LIFE DOT 3 SYNTHETIC BRAKE FLUID 5 GALLON	
Bioaccumulative potential	Not established.
Triethylene Glycol Monomethyl Ether (112-35-6)	
Partition coefficient n-octanol/water (Log Pow)	-1.12 (Practical experience/observation, OECD 107: Partition Coefficient (n-octanol/water): Shake Flask Method, 25 °C)
Bioaccumulative potential	Bioaccumulation: not applicable. Not established.
Triethyleneglycol Monoethyl Ether (112-50-5)	
Partition coefficient n-octanol/water (Log Pow)	0.51 (Weight of evidence approach, OECD 107: Partition Coefficient (n-octanol/water): Shake Flask Method, 25 °C)
Bioaccumulative potential	Not bioaccumulative. Not established.
Triethylene Glycol Monobutyl Ether (143-22-6)	
Partition coefficient n-octanol/water (Log Pow)	0.51 (Experimental value)
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4). Not established.
3,6,9,12-Tetraoxahexadecane-1-ol (1559-34-8)	
Partition coefficient n-octanol/water (Log Pow)	-0.26 (QSAR, 25 °C)
Bioaccumulative potential	Bioaccumulation: not applicable. Not established.
Polyethylene Glycol 200-600 (25322-68-3)	
Partition coefficient n-octanol/water (Log Pow)	-1.2
Bioaccumulative potential	Bioaccumulation: not applicable. Not established.
2-(2-Butoxyethoxy) Ethanol (112-34-5)	
BCF - Fish [1]	0.46 (BCF)
Partition coefficient n-octanol/water (Log Pow)	0.56 (Experimental value)
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).
Diethylene Glycol (111-46-6)	
BCF - Fish [1]	100 l/kg (3 day(s), Leuciscus melanotus, Static system, Fresh water, Experimental value)
Partition coefficient n-octanol/water (Log Pow)	-1.98 (Calculated)
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500). Not established.
Diethylene Glycol Monomethyl Ether (111-77-3)	
Partition coefficient n-octanol/water (Log Pow)	-1.14 – -0.68
Bioaccumulative potential	Bioaccumulation: not applicable. Not established.
Diethyleneglycolmonoethyl Ether (111-90-0)	
Partition coefficient n-octanol/water (Log Pow)	-0.54 (Literature, 20 °C)
Bioaccumulative potential	Bioaccumulation: not applicable. Not established.
Tetraethylene Glycol Monomethyl Ether (23783-42-8)	
Partition coefficient n-octanol/water (Log Pow)	-1.5 (20 °C)
Bioaccumulative potential	Bioaccumulation: not applicable. Not established.
Oxirane, 2-Methyl-, Polymer with Oxirane, Monobutyl Ether (9038-95-3)	
Bioaccumulative potential	Not bioaccumulative. Not established.
Trade Secret Inhibitor Package (Trade Secret)	
Bioaccumulative potential	Not established.
Polyalkylene Glycol Monobutyl Ether (9004-77-7)	
Bioaccumulative potential	Not established.
12.4. Mobility in soil	
Triethylene Glycol Monomethyl Ether (112-35-6)	
Surface tension	31.4 mN/m
Ecology - soil	No (test)data on mobility of the substance available.
Triethyleneglycol Monoethyl Ether (112-50-5)	
Surface tension	52 mN/m (25 °C, 9 g/l)
Ecology - soil	Low potential for adsorption in soil.

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3,6,9,12-Tetraoxahexadecane-1-ol (1559-34-8)	
Ecology - soil	No (test)data on mobility of the substance available.
2-(2-Butoxyethoxy) Ethanol (112-34-5)	
Surface tension	0.034 N/m (25 °C)
Diethylene Glycol (111-46-6)	
Surface tension	No data available in the literature
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	0 (log Koc, SRC PCKOCWIN v2.0, QSAR)
Ecology - soil	Highly mobile in soil.
Diethylene Glycol Monomethyl Ether (111-77-3)	
Surface tension	0.035 N/m (25 °C)
Diethyleneglycolmonoethyl Ether (111-90-0)	
Surface tension	52 mN/m (25 °C)
Ecology - soil	Highly mobile in soil.
Tetraethylene Glycol Monomethyl Ether (23783-42-8)	
Surface tension	52 – 70 mN/m (25 °C)
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	1 (log Koc, SRC PCKOCWIN v2.0, Calculated value)
Ecology - soil	Highly mobile in soil.

12.5. Other adverse effects

Other information : Avoid release to the environment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Product/Packaging disposal recommendations : Dispose in a safe manner in accordance with local/national regulations. Dispose of contents/container to appropriate waste disposal facility, in accordance with local, regional, national, international regulations.

Ecology - waste materials : Avoid release to the environment.

SECTION 14: Transport information

Department of Transportation (DOT)

In accordance with DOT

Proper Shipping Name (DOT) : Not Regulated
Other information : No supplementary information available.

Transport by sea

Air transport

Proper Shipping Name (IATA) : Not Regulated

SECTION 15: Regulatory information

15.1. US Federal regulations

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SARA Section 311/312 Hazard Classes	Delayed (chronic) health hazard Immediate (acute) health hazard
Triethylene Glycol Monomethyl Ether (112-35-6)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
Triethyleneglycol Monoethyl Ether (112-50-5)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
Triethylene Glycol Monobutyl Ether (143-22-6)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
3,6,9,12-Tetraoxahexadecane-1-ol (1559-34-8)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	

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Polyethylene Glycol 200-600 (25322-68-3)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
EPA TSCA Regulatory Flag	XU - XU - indicates a substance exempt from reporting under the Chemical Data Reporting Rule, (40 CFR 711).
2-(2-Butoxyethoxy) Ethanol (112-34-5)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
SARA Section 311/312 Hazard Classes	Immediate (acute) health hazard Delayed (chronic) health hazard Reactive hazard
Diethylene Glycol (111-46-6)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
Diethylene Glycol Monomethyl Ether (111-77-3)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
Diethyleneglycolmonoethyl Ether (111-90-0)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
Tetraethylene Glycol Monomethyl Ether (23783-42-8)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
Oxirane, 2-Methyl-, Polymer with Oxirane, Monobutyl Ether (9038-95-3)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
EPA TSCA Regulatory Flag	XU - XU - indicates a substance exempt from reporting under the Chemical Data Reporting Rule, (40 CFR 711).
Trade Secret Inhibitor Package (Trade Secret)	
Not listed on the United States TSCA (Toxic Substances Control Act) inventory	
Polyalkylene Glycol Monobutyl Ether (9004-77-7)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
EPA TSCA Regulatory Flag	XU - XU - indicates a substance exempt from reporting under the Chemical Data Reporting Rule, (40 CFR 711).

15.2. International regulations

CANADA

Triethylene Glycol Monomethyl Ether (112-35-6)	
Listed on the Canadian DSL (Domestic Substances List)	
Triethyleneglycol Monoethyl Ether (112-50-5)	
Listed on the Canadian DSL (Domestic Substances List)	
Triethylene Glycol Monobutyl Ether (143-22-6)	
Listed on the Canadian DSL (Domestic Substances List)	
3,6,9,12-Tetraoxahexadecane-1-ol (1559-34-8)	
Listed on the Canadian DSL (Domestic Substances List)	
Polyethylene Glycol 200-600 (25322-68-3)	
Listed on the Canadian DSL (Domestic Substances List)	
2-(2-Butoxyethoxy) Ethanol (112-34-5)	
Listed on the Canadian DSL (Domestic Substances List)	
WHMIS Classification	Class B Division 3 - Combustible Liquid Class D Division 2 Subdivision B - Toxic material causing other toxic effects
Diethylene Glycol (111-46-6)	
Listed on the Canadian DSL (Domestic Substances List)	
Diethylene Glycol Monomethyl Ether (111-77-3)	
Listed on the Canadian DSL (Domestic Substances List)	
Diethyleneglycolmonoethyl Ether (111-90-0)	
Listed on the Canadian DSL (Domestic Substances List)	
Tetraethylene Glycol Monomethyl Ether (23783-42-8)	
Listed on the Canadian DSL (Domestic Substances List)	
Oxirane, 2-Methyl-, Polymer with Oxirane, Monobutyl Ether (9038-95-3)	
Listed on the Canadian DSL (Domestic Substances List)	
Trade Secret Inhibitor Package (Trade Secret)	

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Polyalkylene Glycol Monobutyl Ether (9004-77-7)

Listed on the Canadian DSL (Domestic Substances List)

EU-Regulations

Triethyleneglycol Monoethyl Ether (112-50-5)

Triethylene Glycol Monobutyl Ether (143-22-6)

3,6,9,12-Tetraoxahexadecane-1-ol (1559-34-8)

Polyethylene Glycol 200-600 (25322-68-3)

2-(2-Butoxyethoxy) Ethanol (112-34-5)

Diethylene Glycol (111-46-6)

Diethylene Glycol Monomethyl Ether (111-77-3)

Diethyleneglycolmonoethyl Ether (111-90-0)

Tetraethylene Glycol Monomethyl Ether (23783-42-8)

Oxirane, 2-Methyl-, Polymer with Oxirane, Monobutyl Ether (9038-95-3)

Trade Secret Inhibitor Package (Trade Secret)

Polyalkylene Glycol Monobutyl Ether (9004-77-7)

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Not classified

Classification according to Directive 67/548/EEC [DSD] or 1999/45/EC [DPD]

15.2.2. National regulations

Triethyleneglycol Monoethyl Ether (112-50-5)

Triethylene Glycol Monobutyl Ether (143-22-6)

3,6,9,12-Tetraoxahexadecane-1-ol (1559-34-8)

Polyethylene Glycol 200-600 (25322-68-3)

2-(2-Butoxyethoxy) Ethanol (112-34-5)

Diethylene Glycol (111-46-6)

Diethylene Glycol Monomethyl Ether (111-77-3)

Diethyleneglycolmonoethyl Ether (111-90-0)

Tetraethylene Glycol Monomethyl Ether (23783-42-8)

Oxirane, 2-Methyl-, Polymer with Oxirane, Monobutyl Ether (9038-95-3)

Trade Secret Inhibitor Package (Trade Secret)

Not listed on the Canadian DSL (Domestic Substances List)/NDSL (Non-Domestic Substances List)

Polyalkylene Glycol Monobutyl Ether (9004-77-7)

15.3. US State regulations

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U.S. - California - Proposition 65 - Carcinogens List	No
U.S. - California - Proposition 65 - Developmental Toxicity	No
U.S. - California - Proposition 65 - Reproductive Toxicity - Female	No
U.S. - California - Proposition 65 - Reproductive Toxicity - Male	No

Triethylene Glycol Monomethyl Ether (112-35-6)

U.S. - California - Proposition 65 - Carcinogens List	U.S. - California - Proposition 65 - Developmental Toxicity	U.S. - California - Proposition 65 - Reproductive Toxicity - Female	U.S. - California - Proposition 65 - Reproductive Toxicity - Male	No significant risk level (NSRL)
No	No	No	No	

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Triethyleneglycol Monoethyl Ether (112-50-5)				
U.S. - California - Proposition 65 - Carcinogens List	U.S. - California - Proposition 65 - Developmental Toxicity	U.S. - California - Proposition 65 - Reproductive Toxicity - Female	U.S. - California - Proposition 65 - Reproductive Toxicity - Male	No significant risk level (NSRL)
No	No	No	No	
Triethylene Glycol Monobutyl Ether (143-22-6)				
U.S. - California - Proposition 65 - Carcinogens List	U.S. - California - Proposition 65 - Developmental Toxicity	U.S. - California - Proposition 65 - Reproductive Toxicity - Female	U.S. - California - Proposition 65 - Reproductive Toxicity - Male	No significant risk level (NSRL)
No	No	No	No	
3,6,9,12-Tetraoxahexadecane-1-ol (1559-34-8)				
U.S. - California - Proposition 65 - Carcinogens List	U.S. - California - Proposition 65 - Developmental Toxicity	U.S. - California - Proposition 65 - Reproductive Toxicity - Female	U.S. - California - Proposition 65 - Reproductive Toxicity - Male	No significant risk level (NSRL)
No	No	No	No	
Polyethylene Glycol 200-600 (25322-68-3)				
U.S. - California - Proposition 65 - Carcinogens List	U.S. - California - Proposition 65 - Developmental Toxicity	U.S. - California - Proposition 65 - Reproductive Toxicity - Female	U.S. - California - Proposition 65 - Reproductive Toxicity - Male	No significant risk level (NSRL)
No	No	No	No	
2-(2-Butoxyethoxy) Ethanol (112-34-5)				
U.S. - California - Proposition 65 - Carcinogens List	U.S. - California - Proposition 65 - Developmental Toxicity	U.S. - California - Proposition 65 - Reproductive Toxicity - Female	U.S. - California - Proposition 65 - Reproductive Toxicity - Male	No significant risk level (NSRL)
No	No	No	No	
Diethylene Glycol (111-46-6)				
U.S. - California - Proposition 65 - Carcinogens List	U.S. - California - Proposition 65 - Developmental Toxicity	U.S. - California - Proposition 65 - Reproductive Toxicity - Female	U.S. - California - Proposition 65 - Reproductive Toxicity - Male	No significant risk level (NSRL)
No	No	No	No	
Diethylene Glycol Monomethyl Ether (111-77-3)				
U.S. - California - Proposition 65 - Carcinogens List	U.S. - California - Proposition 65 - Developmental Toxicity	U.S. - California - Proposition 65 - Reproductive Toxicity - Female	U.S. - California - Proposition 65 - Reproductive Toxicity - Male	No significant risk level (NSRL)
No	No	No	No	
Diethyleneglycolmonoethyl Ether (111-90-0)				
U.S. - California - Proposition 65 - Carcinogens List	U.S. - California - Proposition 65 - Developmental Toxicity	U.S. - California - Proposition 65 - Reproductive Toxicity - Female	U.S. - California - Proposition 65 - Reproductive Toxicity - Male	No significant risk level (NSRL)
No	No	No	No	
Tetraethylene Glycol Monomethyl Ether (23783-42-8)				
U.S. - California - Proposition 65 - Carcinogens List	U.S. - California - Proposition 65 - Developmental Toxicity	U.S. - California - Proposition 65 - Reproductive Toxicity - Female	U.S. - California - Proposition 65 - Reproductive Toxicity - Male	No significant risk level (NSRL)
No	No	No	No	
Oxirane, 2-Methyl-, Polymer with Oxirane, Monobutyl Ether (9038-95-3)				
U.S. - California - Proposition 65 - Carcinogens List	U.S. - California - Proposition 65 - Developmental Toxicity	U.S. - California - Proposition 65 - Reproductive Toxicity - Female	U.S. - California - Proposition 65 - Reproductive Toxicity - Male	No significant risk level (NSRL)
No	No	No	No	

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Trade Secret Inhibitor Package (Trade Secret)				
U.S. - California - Proposition 65 - Carcinogens List	U.S. - California - Proposition 65 - Developmental Toxicity	U.S. - California - Proposition 65 - Reproductive Toxicity - Female	U.S. - California - Proposition 65 - Reproductive Toxicity - Male	No significant risk level (NSRL)
No	No	No	No	

Polyalkylene Glycol Monobutyl Ether (9004-77-7)				
U.S. - California - Proposition 65 - Carcinogens List	U.S. - California - Proposition 65 - Developmental Toxicity	U.S. - California - Proposition 65 - Reproductive Toxicity - Female	U.S. - California - Proposition 65 - Reproductive Toxicity - Male	No significant risk level (NSRL)
No	No	No	No	

Diethylene Glycol (111-46-6)				
State or local regulations				
U.S. - Pennsylvania - RTK (Right to Know) List				

Diethylene Glycol Monomethyl Ether (111-77-3)				
State or local regulations				
U.S. - Massachusetts - Right To Know List				
U.S. - Pennsylvania - RTK (Right to Know) List				

SECTION 16: Other information

Indication of changes : Revision - See : *

Other information : None.

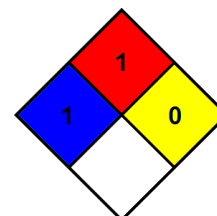
Full text of H-phrases:

H227	Combustible liquid
H302	Harmful if swallowed
H315	Causes skin irritation
H318	Causes serious eye damage
H319	Causes serious eye irritation
H361	Suspected of damaging fertility or the unborn child
H373	May cause damage to organs through prolonged or repeated exposure

NFPA health hazard : 1 - Materials that, under emergency conditions, can cause significant irritation.

NFPA fire hazard : 1 - Materials that must be preheated before ignition can occur.

NFPA reactivity : 0 - Material that in themselves are normally stable, even under fire conditions.



Hazard Rating

Health : 1 Slight Hazard - Irritation or minor reversible injury possible

Flammability : 1 Slight Hazard

Physical : 0 Minimal Hazard

Personal protection : B

The Supplier identified in Section 1 of this SDS has evaluated this product and certifies it to be labeled and packaged in compliance with the applicable provisions of the Federal Hazardous Substance Act as stated in 16 CFR 1500 and enforced by the Consumer Product Safety Commission, and where applicable the products that require Child Resistant Closures are packaged in accordance with the Poison Prevention Packaging Act as stated in 16 CFR 1700 and enforced by the Consumer Product Safety Commission. All closures have been tested in accordance with the latest protocols. No other testing is required to certify compliance with the above. The date of manufacture is stamped on the product

Disclaimer: The information and recommendations contained herein are based upon tests believed to be reliable. However, the manufacturer/distributor of this product does not guarantee their accuracy or completeness NOR SHALL ANY OF THIS INFORMATION CONSTITUTE A WARRANTY, WHETHER EXPRESSED OR IMPLIED, AS TO THE SAFETY OF THE GOODS, THE MERCHANTABILITY OF THE GOODS, OR THE FITNESS OF THE GOODS FOR A PARTICULAR PURPOSE. Adjustment to conform to actual conditions of usage may be required. The manufacturer/distributor assumes no responsibility for results obtained or for incidental or consequential damages, including lost profits, arising from the use of these data. No warranty against infringement of any patent, copyright or trademark is made or implied.